

Work Order ID 51935

Wednesday, September 09, 2009 3:17:41 PM



Page 1

Item ID: D206-667-203

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 9/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 9/30/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

RL

Date:

09-09

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D206-667-243

Rev C

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D206-667-203 CHG003

HJ *for BG* *09/11/13*

110

0.00



BENDING MACHINE - CROSSTUBES

CNC Bend 2

Memo

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D206-667-243 using CNC bender program 206L-AF and Folio FT

(IV) *a* *MS* *09-10-30*

120

QC15- Crosstube Dimensional Check

0.00



QC

Memo

0.00

Quality Control

2) *5* *09/10/30*

(IV) *6*

Work Order ID 51935

Wednesday, September 09, 2009 3:17:41 PM

Page 2

Item ID: D206-667-203

Accept

Revision ID: C

Item Name: Crosstube Aft

Setup Start

Stop

Start Date: 9/10/2009 Start Qty: 1.00

Required Date: 9/30/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

130



Crosstubes

Crosstubes

0.00

Memo

0.00

1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-243. Drill all (3) top holes. □2-Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-243 Check dimensions between holes on all

DP 9-11-2

140



HandFXtube

Crosstubes Chemical Conversion

0.00

Memo

0.00

Hand Finishing Crosstubes

1 - - AUM 9-11-3

150



QC

QC3- Inspect Part Finish

0.00

Memo

0.00

Quality Control

⇒ Soruloy

(X)

Work Order ID 51935

Wednesday, September 09, 2009 3:17:41 PM

Page 3

Item ID: D206-667-203

Accept

Setup Start

Revision ID: C

Stop

Item Name: Crosstube Aft

Start Date: 9/10/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 9/30/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

160

QC5- Inspect part completeness to step on W/O

0.00

z) Sorduloy



QC

Memo

0.00

Quality Control

CD
PL 0911-5

170

Outsource process - NDT per QSI038 4.1

0.00



Outsource2

Memo

0.00

Outsource process - NDT

Liquid Penetrant Inspection as per QSI 038 Or ☐ Issue P/O 10740 ☐ LPI as
per ASTM 1417 ☐ Level 2 Attach copy of NDT results to work order

180

Packaging

0.00



Packaging

Memo

0.00

Packaging

Ensure copy of NDT results attached to work order.

10/9/05 (V)

Work Order ID 51935

Wednesday, September 09, 2009 3:17:41 PM



Page 4

Item ID: D206-667-203

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 9/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 9/30/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
| 190 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | <u>M</u> | <u>09</u> | <u>11</u> | <u>09</u> ① |
| QC Quality Control | Memo Ensure results are as per Dwg D206-667-243 | 0.00 | | | | | | | |
| 200 | SprayPaint | 0.00 | | | | <u>AT</u> | <u>09</u> | <u>11</u> | <u>10</u> |
| SprayPaint Spray Painting | Memo 1-Prime inside and outside crosstube as per QSI 005 4.2 2-Paint outside crosstube with White Imron as per QSI 005 4.2 <input type="checkbox"/> PRIME: <input type="checkbox"/> Start Time: <u>11:00</u> <input type="checkbox"/> Finish Time: <u>12:00</u> <input type="checkbox"/> PAINT: <input type="checkbox"/> Start Time: <u>3:00</u> <input type="checkbox"/> Finish Time: <u>4:30</u> | 0.00 | | | | | | | |
| 210 | QC14- Inspect Spray Paint | 0.00 | | | | <u>M</u> | <u>09</u> | <u>11</u> | <u>11</u> ① |
| QC Quality Control | Memo Wrap in plastic bag to protect from scratches | 0.00 | | | | | | | |

Work Order ID 51935

Wednesday, September 09, 2009 3:17:41 PM

Page 5

Item ID: D206-667-203

Accept

Setup Start

Revision ID: C

Stop

Item Name: Crosstube Aft

Start Date: 9/10/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 9/30/2009 Req'd Qty: 1.00

Customer:




Reference:

Run Start

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|-----------------|
| 220  Crosstubes | Crosstubes | 0.00 | | | | <u>ml</u> | <u>09</u> | <u>11</u> | <u>12</u> ① |
| Crosstubes | Memo | 0.00 | | | | | | | |
| Crosstubes | 1-Install nut plates as per Dwg D206-667-243. | | | | | | | | |
| 230  Skidtubes | Skidtubes | 0.00 | | | | <u>ml</u> | <u>09</u> | <u>11</u> | <u>11</u> ① |
| Skidtubes | Memo | 0.00 | | | | | | | |
| Skidtubes | 1-Install support using 0.03" to 0.06" thick layer of magnobond 6398 per QSI 015. Let cure for 12h after installation and prior to packaging. Note: (3) top holes should be facing up. □ A/R Magnobond 6398 : 112417 exp 01/2011 Install supports and clamps as Torque: M 09 11 12 ① | | | | | | | | |
| 240  QC | QC5- Inspect part completeness to step on W/O | 0.00 | | | | <u>1</u> | | | <u>09-11-12</u> |
| Quality Control | Memo | 0.00 | | | | | | | |

Work Order ID 51935

Wednesday, September 09, 2009 3:17:41 PM

Page 6

Item ID: D206-667-203

Accept

Revision ID: C

Item Name: Crosstube Aft

Start Date: 9/10/2009 Start Qty: 1.00

Required Date: 9/30/2009 Req'd Qty: 1.00

Reference:

Cust Item ID:




Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|-------------------|
| 250  Packaging Packaging | Pick Kit Memo | 0.00 0.00 | | | | | 9/11/12 | | SP |
| 260  QC Quality Control | QC4- 100% Inspect kits for completeness Memo | 0.00 0.00 | | | | | | | NO 09/11/13 VI |
| 270  Packaging Packaging | Packaging Memo Identify and pack for shipping as per PPP D206-667-203 Location: _____ □ PPP Rev: <u>D</u> | 0.00 0.00 | | | | | 9/11/16 | 10 SP | |

Work Order ID 51935

Wednesday, September 09, 2009 3:17:41 PM



Page 7

Item ID: D206-667-203

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 9/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 9/30/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/11/17
MF
09-11-16

Picklist Print

Wednesday, September 09, 2009 3:17:47 PM

Page 1
6

Work Order ID: 51935



Parent Item: D206-667-203RevC



Parent Item Name: Crosstube Aft

Start Date: 9/10/2009

Required Date: 9/30/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| AN960JD516 | | Purchased | No | | | 100 | Each | 1,202.000 | 18.0000 | | | |
| | | | | | | | | | | | | |
| Washer | | | | | | | | | | | | |

9/11/13 SP

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

1202

100564

2

106167

6

107534

34

107959

43

108246

46

108672

2

109059

49

109752

22

110363

46

110523

57

111279

43

112082

352

112314

500

18X

D206-667-
203TRNRevC

Manufactured No

220

Each

2.0000

1.0000



Crosstube Turning Detail

B-52742 MS 09-10-29

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

FG

2

45623

1

45625

1

B-

Picklist Print

Page 2

Wednesday, September 09, 2009 3:17:48 PM

Work Order ID: 51935



Parent Item: D206-667-203RevC



Parent Item Name: Crosstube Aft

Start Date: 9/10/2009

Required Date: 9/30/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D2873-043RevA | | Manufactured | No | | | 220 | Each | 53.0000 | 2.0000 | | | |
| | | | | | | | | | | | | |

Nut Plate Assembly

| <u>Warehouse</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|------------------|----------------|-----------------|
| <u>Location</u> | | |
| Main Warehouse | | |
| ST | 53 | |
| 45370 | 18 | |
| <u>45422</u> | 15 | |
| 50002 | 20 | |

ml 09 11 12

D2873-045RevA

Manufactured No

220

Each

71.0000

2.0000



Nut Plate Assembly

| <u>Warehouse</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|------------------|----------------|-----------------|
| <u>Location</u> | | |
| Main Warehouse | | |
| ST | 71 | |
| 45210 | 11 | |
| <u>46772</u> | 20 | |
| 50001 | 40 | |

ml 09 11 12

Picklist Print

Page 3

Wednesday, September 09, 2009 3:17:48 PM

Work Order ID: 51935



Parent Item: D206-667-203RevC



Parent Item Name: Crosstube Aft

Start Date: 9/10/2009

Required Date: 9/30/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D2892-1RevA | | Manufactured | No | | | 230 | Each | 48.0000 | 2.0000 | | | |
| | | | | | | | | | | | | |
| Support | | | | | | | | | | | | |

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

48

35581

4

41986

20

42785

20

45936

4

nl 09 11 11

D3595-063-450RevA

Manufactured

No



230

Each

81.1789

4.0000



RUBBER CUSHION

Warehouse Loc Qty Loc Code

Location

Main Warehouse

LG

74

50953

74

Main Warehouse

ST

7.1789

38959

2

43210

4.8

46465

0.3789

nl 09 11 11

Wednesday, September 09, 2009 3:17:48 PM

Shop Packet Print

Page 3

Picklist Print

Page 4

Wednesday, September 09, 2009 3:17:48 PM

Work Order ID: 51935



Parent Item: D206-667-203RevC



Parent Item Name: Crosstube Aft

Start Date: 9/10/2009

Required Date: 9/30/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| MS20601-AD4W10 | | Purchased | No | | | 230 | Each | 241.0000 | 14.0000 | | | |
| | | | | | | | | | | | | |
| RIVET | | | | | | | | | | | | |

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

241

110665

100

111177

141

AN5-10A

Purchased

No

260

Each

150.0000

10.0000



Bolt

mt 09/11/12

9/11/13 sf

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

150

107013

8

110363

2

111425

2

111819

38

112314

50

112385

50

M112805

1x 51

9x

Picklist Print

Page 5

Wednesday, September 09, 2009 3:17:48 PM

Work Order ID: 51935

Parent Item: D206-667-203RevC

Parent Item Name: Crosstube Aft

Comments:

Start Date: 9/10/2009

Required Date: 9/30/2009

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|

| | | | | | | | | | | | | |
|---------|--|-----------|----|--|--|-----|------|---------|--------|--|---------|----|
| AN5-32A | | Purchased | No | | | 260 | Each | 79.0000 | 4.0000 | | 9/11/13 | sf |
|---------|--|-----------|----|--|--|-----|------|---------|--------|--|---------|----|

Bolt

Warehouse Loc Qty Loc Code

Location

Main Warehouse

| | | | |
|--------|---------|----|--|
| ST | 4112805 | 79 | |
| 106242 | | 3 | |
| 106519 | | 4 | |
| 110363 | | 17 | |
| 111916 | | 5 | |
| 112082 | | 50 | |

1x
sf

| | | | | | | | | | | | | |
|---------|--|-----------|----|--|--|-----|------|---------|--------|--|---------|------|
| AN5-34A | | Purchased | No | | | 260 | Each | 50.0000 | 4.0000 | | 9/11/13 | @ sf |
|---------|--|-----------|----|--|--|-----|------|---------|--------|--|---------|------|

Bolt

Warehouse Loc Qty Loc Code

Location

Main Warehouse

| | | | |
|--------|--|----|--|
| ST | | 50 | |
| 104679 | | 2 | |
| 105408 | | 1 | |
| 107013 | | 2 | |
| 111425 | | 45 | |

4x sf

Picklist Print

Page 6

Wednesday, September 09, 2009 3:17:48 PM

Work Order ID: 51935



Parent Item: D206-667-203RevC



Parent Item Name: Crosstube Aft

Start Date: 9/10/2009

Required Date: 9/30/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|

| | | | | | | | | | | | | |
|-----------|--|-----------|----|--|--|-----|------|-----------|--------|--|--|--|
| MS21042L5 | | Purchased | No | | | 260 | Each | 1,331.000 | 4.0000 | | | |
|-----------|--|-----------|----|--|--|-----|------|-----------|--------|--|--|--|



Nut



9/11/13 SP

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 1331

110382 10

111636 321

112314 1000

| | | | | | | | | | | | | |
|------------|--|-----------|----|--|--|-----|------|----------|--------|--|--|--|
| MS21920-22 | | Purchased | No | | | 260 | Each | 114.0000 | 4.0000 | | | |
|------------|--|-----------|----|--|--|-----|------|----------|--------|--|--|--|



Clamp(per MIL-DTL-8783C)



4x SP

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 114

109495 14

110260 50

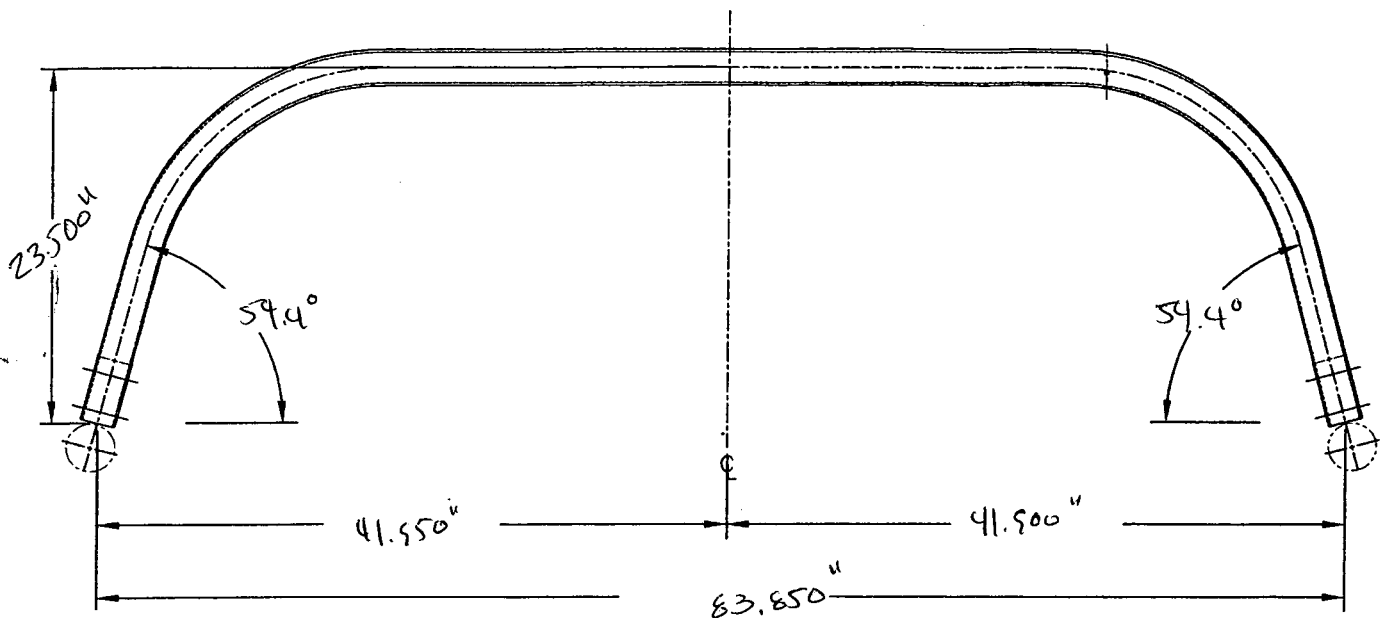
111210 50

mt 02 11 11

| | | | |
|---|--|---------------------|---------------------|
| DART AEROSPACE LTD | | Work Order: | 519.35 |
| Description: Crosstube High Aft (206L) | | # 51935 | |
| | | Part Number: | D206-667-243 |
| Inspection Dwg: D206-667-243 | | Rev: B C | Page 1 of 1 |

09.09.21

| Required Dimension | Min | Max |
|--------------------|-------|-------|
| Height | 23.46 | 23.58 |
| 1/2 Span | 41.86 | 41.98 |
| Angle | 54 | 56 |
| Total Span | 83.72 | 83.96 |



| Comments |
|----------|
| |
| |
| |
| |

| | |
|-----------------|----------|
| QC15 Inspection | 8 |
| Date | 09/10/20 |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A | 07.02.06 | New Issue | KJ/JM | |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Initial all entries

| Item | Qty -243 | Part Number | Description |
|------|-------------|----------------|--|
| 1 | X | D206-667-243 | CROSSTUBE ASSEMBLY (206L HIGH AFT) |
| 2 | 1 | D6004-115 | CROSSTUBE |
| 3 | 2 | D2873-043 | NUT PLATE |
| 4 | 2 | D2873-045 | NUT PLATE |
| 5 | 2 | D2892-1 | SUPPORT |
| 6 | 4 | D3595-063-450 | RUBBER CUSHION |
| 7 | 4 | MS21920-22 | CLAMP |
| 8 | 14 | MS20601AD4W10 | RIVET (OR NAS9302B-4-10) |
| 9 | A/R | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE) |

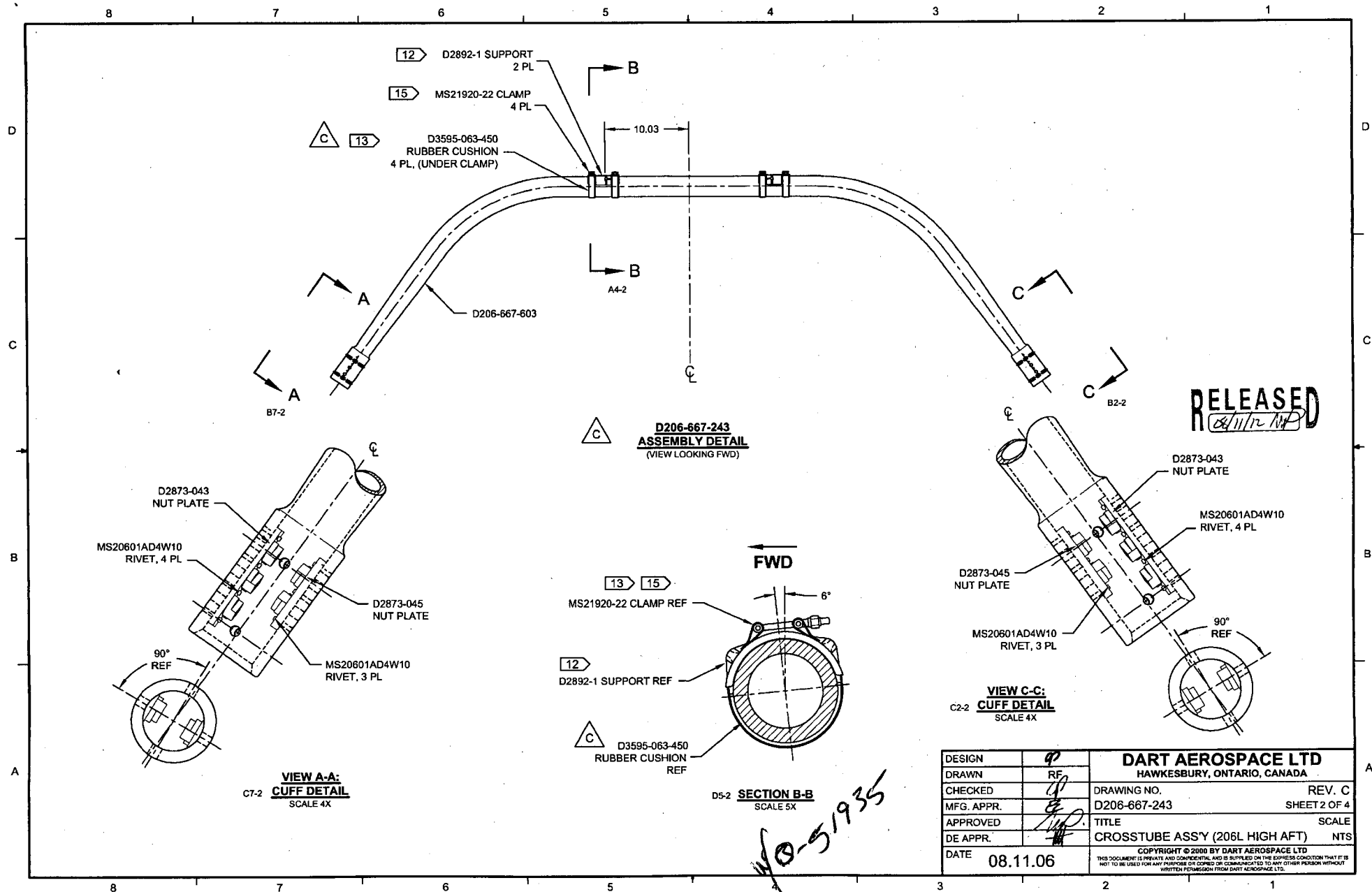
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 51935

GENERAL NOTES:

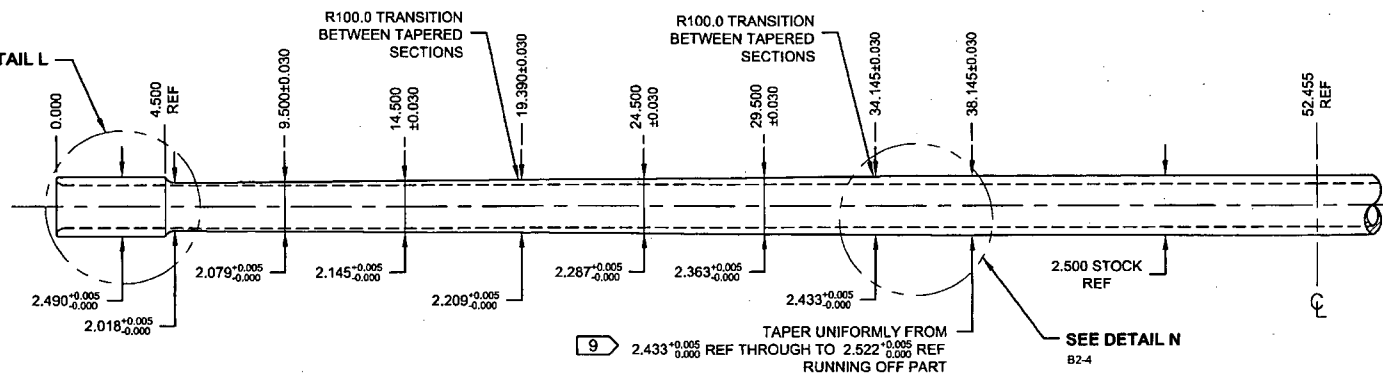
- 1) MATERIAL: MANUFACTURED FROM D6004-115
FINISHED LENGTH = 104.91±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-243" AND BATCH NUMBER ON
INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 21.9 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY,
TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE
TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER
QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE
D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE
LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN
SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
08/11/06

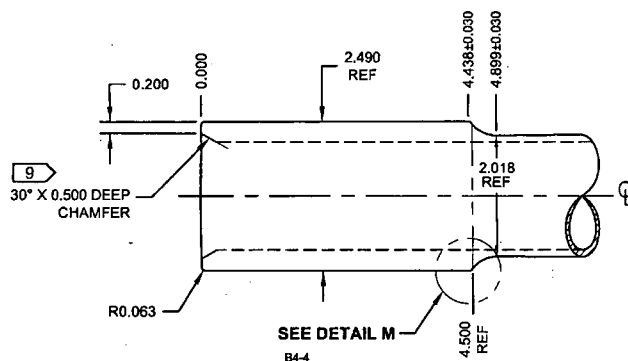
| | | | |
|------------|---|---|--------------|
| C | REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-450 WAS D2858-400-773 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN 4-3, C5-3, D3-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4. | RF | 08.11.06 |
| B | ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES | PH | 05.07.28 |
| A | NEW ISSUE | CP | 00.11.17 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | RF | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWN | RF | DRAWING NO. | REV. C |
| CHECKED | RF | D206-667-243 | SHEET 1 OF 4 |
| MFG. APPR. | RF | TITLE | SCALE |
| APPROVED | RF | CROSSTUBE ASS'Y (206L HIGH AFT) | NTS |
| DE APPR. | RF | COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | |
| DATE | 08.11.06 | | |



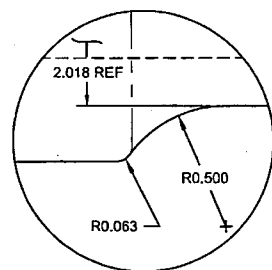
SEE DETAIL L
B7-4



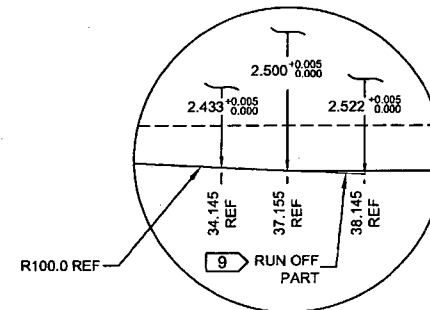
TURNING DETAIL



DETAIL L: CROSSTUBE CUFF
NOT TO SCALE



DETAIL M: CUFF TRANSITION
NOT TO SCALE



DETAIL N: TAPER RUN-OFF
NOT TO SCALE

RELEASED
08/11/2006

| | | | |
|------------|----------|--|--------------|
| DESIGN | 9 | DART AEROSPACE LTD | |
| DRAWN | RF | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | 9 | DRAWING NO. | REV. C |
| MFG. APPR. | 9 | D206-667-243 | SHEET 4 OF 4 |
| APPROVED | 9 | TITLE | SCALE |
| DE APPR. | 9 | CROSSTUBE ASS'Y (206L HIGH AFT) | NTS |
| DATE | 08.11.06 | COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | |

W/ 51935

5.0 PARTS LIST

| Item | Qty -011 | Qty -013 | Qty -015 | Qty -101 | Qty -201 | Qty -103 | Qty -203 | Qty -105 | Qty -205 | Part Number | Description |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--|
| | X | | | | | | | | | D206-667-011 | SPACER BLOCK KIT |
| | | X | | | | | | | | D206-667-013 | NUT PLATE KIT (-101/-103/-105/-203/-205) |
| | | | X | | | | | | | D206-667-015 | NUT PLATE KIT (-201) |
| | | | | X | | | | | | D206-667-101 | CROSSTUBE INSTALLATION, 206A/B HIGH FWD |
| | | | | | X | | | | | D206-667-201 | CROSSTUBE INSTALLATION, 206A/B HIGH AFT |
| | | | | | | X | | | | D206-667-103 | CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH FWD |
| | | | | | | | X | | | D206-667-203 | CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH AFT |
| | | | | | | | | X | | D407-667-105 | CROSSTUBE INSTALLATION, 407 HIGH FWD |
| | | | | | | | | | X | D407-667-205 | CROSSTUBE INSTALLATION, 407 HIGH AFT |
| 1 | | | | 1 | | | | | | D206-667-141 | CROSSTUBE ASSEMBLY, 206A/B HIGH FWD |
| 2 | | | | | 1 | | | | | D206-667-241 | CROSSTUBE ASSEMBLY, 206A/B HIGH AFT |
| 3 | | | | | | 1 | | | | D206-667-143 | CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH FWD |
| 4 | | | | | | | 1 | | | D206-667-243 | CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH AFT |
| 5 | | | | | | | | 1 | | D407-667-145 | CROSSTUBE ASSEMBLY, 407 HIGH FWD |
| 6 | | | | | | | | | 1 | D407-667-245 | CROSSTUBE ASSEMBLY, 407 HIGH AFT |
| 10 | | | | *2 | *2 | *2 | | *2 | | D2891-1 | SUPPORT |
| 11 | | | | | | | *2 | | | D2892-1 | SUPPORT |
| 12 | | | | | | | | | *1 | D2894-1 | SUPPORT |
| 13 | | | | *2 | *2 | *2 | | *2 | | D2856-400-694 | ABRASION STRIP |
| 14 | | | | | | | *2 | | *2 | D2856-400-773 | ABRASION STRIP |
| 15 | | | | | | | | | *1 | D2856-600-851 | ABRASION STRIP |
| 16 | | | | *4 | *4 | *4 | | *4 | | MS21920-20 | CLAMP |
| 17 | | | | | | | *4 | | *4 | MS21920-22 | CLAMP |
| 18 | | | | | | | | | *2 | MS21920-24 | CLAMP |
| 19 | | | | 4 | 4 | 4 | | 4 | | AN5-32A | BOLT |
| 20 | | | | | | | 4 | | 4 | AN5-34A | BOLT |
| 21 | | | | 4 | 4 | 4 | 4 | 4 | 4 | MS21042L5 | NUT (OR MS21042-5) |
| 22 | | | | 8 | 8 | 8 | 8 | 8 | 8 | AN960JD516 | WASHER |
| 23 | | | | | | | | | *2 | D3190-1 | CHAFING SHIELD |
| 30 | 8 | | | | | | | | | AN4-6A | BOLT |
| 31 | 8 | | | | | | | | | AN4-7A | BOLT |
| 32 | 16 | | | | | | | | | AN960JD416 | WASHER |
| 33 | 2 | | | | | | | | | D3193-041 | SPACER BLOCK ASSEMBLY |
| 40 | | 2 | | *2 | | *2 | *2 | *2 | *2 | D2873-043 | NUT PLATE |
| 41 | | 2 | | *2 | | *2 | *2 | *2 | *2 | D2873-045 | NUT PLATE |
| 42 | | | 2 | | 2 | | | | | D2872-043 | NUT PLATE |
| 43 | | | 2 | | 2 | | | | | D2872-045 | NUT PLATE |
| 44 | | 10 | | 10 | | 10 | | | | AN5-7A | BOLT |
| 45 | | 10 | 10 | | 10 | | 10 | 10 | 10 | AN5-10A | BOLT |
| 46 | | 4 | 4 | 4 | 10 | 4 | | 4 | | AN5-30A | BOLT |
| 47 | | 4 | | | | | 4 | | 4 | AN5-32A | BOLT |
| 48 | | 18 | 18 | 10 | 12 | 10 | 10 | 10 | 10 | AN960JD516 | WASHER |
| 49 | | 4 | 4 | | 6 | | | | | MS21042L5 | NUT (OR MS21042-5) |

*REFERENCE ONLY. PARTS ARE INCLUDED IN D206-667-141/241/143/243, & D407-667-145/245 ASSEMBLIES ABOVE

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: C

Date: 05.07.26

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

LIQUID PENETRANT TEST REPORT

P. 15307

ACUREN

PAGE 1 of 1

CLIENT

DATE

ATTENTION

ACUREN JOB NO.

ADDRESS

POMO NO.

PROJECT

WORK LOCATION

ITEM(S) EXAMINED

ACCEPTANCE STD.

JOB DESCRIPTION

PROCEDURE NO. 15307 REV. DATE

TECHNIQUE NO. 15307 REV. DATE

PART NO.

WATERWALDNE ASSURANCE THICKNESS

SCOPE

PENETRANT INSPECTION

TEST DETAILS

METHOD

☒ FLUORESCENT☐ VISIBLE☐ WATER WASH☐ SOLVENT REMOVAL☐ POST EMULSIFIER

FAMILY BRAND

MINIART

REINFORCEMENT TIME 95 TO MIN.

BLACK LIGHT SN/1055

EXHIBIT 1000 P/W/100

EXHIBIT 1000 P/W/100

EXHIBIT 1000 P/W/100

PENETRANT REMOVER

H2O2

MINIMUM DRY TIME >10 MIN.

OTHER 495120

CALC DUE DATE 8.03

DEVELOPER

SD 52

MINIMUM DWELL TIME 10 MIN.

LIGHT METER SN

CALC DUE DATE 8.03

TEST SURFACE

☐ NON AQUEOUS☐ AQUEOUS☐ DRY

TEST SURFACE

☐ AS GROUND☐ AS WELD☐ MACHINED☐ SHOT BLASTED☐ CLEAN BARE METAL

SURFACE TEMPERATURE

☐ < 40°C/20°F☐ 40°C/20°F TO 10°C/50°F☐ 10°C/50°F TO 52°C/125°F☐ > 52°C/125°F

RESULTS-

☐ METHOD ☐ INVERTING

ITEM

COMMENTS

ACCEPT

REJECT

1

CROSS TUBE W.O. 51935

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 51936

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 53314

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 53315

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52970

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52971

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52972

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52973

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52974

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52975

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52976

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52977

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52978

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52979

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52980

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52981

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52982

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

CROSS TUBE W.O. 52983

1

1